

**City of Seattle  
Seattle Disaster Readiness and Response Plan  
Earthquake Incident Annex – July 11, 2011**

**I. INTRODUCTION**

**A. Purpose**

1. To enable coordinated, multi-department, multi-jurisdictional response to an earthquake. It applies to all City Departments and provides information to all partners that support or depend on the City response.

**B. Scope**

1. This Annex is part of the Seattle Disaster Readiness and Response Plan (SDRRP). It addresses the challenges posed by the following hazards:
  - a. Earthquake and associated aftershocks, tsunami, seiche, landslides, liquefaction, subsidence
  - b. The primary focus of this plan is a severe earthquake that causes large numbers of casualties, widespread damage, and catastrophic impacts.
2. This plan is a guide which should be adapted as needed to meet conditions at the time of the response.

**II. POLICIES**

**A. Authorities**

1. See Seattle Disaster Readiness and Response Plan Volume I.

**B. Limitations**

1. The City will endeavor to make every reasonable effort to respond to an earthquake and related hazards. However, City resources and systems may become overwhelmed by the magnitude of the disaster and its impacts. This planning represents guidelines and is not intended to guarantee that a perfect response to this type of disaster will be practical or possible.

**III. EARTHQUAKE HAZARDS**

**A. Seattle Region**

1. Possible immediate impacts
  - a. Large numbers of dead, injured and missing
  - b. Multiple structures collapsed or severely damaged
  - c. Many people trapped in collapsed structures, including elevated structures such as roadways, requiring rescue
  - d. Multiple fires
  - e. Damage to fire detection and suppression systems
  - f. Damage to the waterfront area
  - g. Flooding of waterfront area and around lakes
  - h. Localized flooding from ruptured water pipes, damaged reservoirs or tanks
  - i. Interruption of utility services for days, or even weeks to include electrical, water, natural gas, solid waste, sewer
  - j. Shortage of water, food and other commodities
  - k. Shortage of gasoline and diesel fuel
  - l. Hazardous materials release
  - m. Overloaded telephone systems (wired and wireless)

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- n. Interruption of commercial television and radio service
  - o. Disruption of information technology services
  - p. Separated family members
  - q. Large numbers of missing persons
  - r. Widespread damage to roads and bridges
  - s. Isolated neighborhoods
  - t. Diminished healthcare capacity caused by damage to medical facilities and loss of medical supplies and medications
  - u. Reduction in emergency service capacity due to injured responders or damage to stations and equipment
  - v. Lost animals
2. Possible long term impacts:
- a. Businesses failing due to economic impacts
  - b. Increased unemployment
  - c. Elevated risk of disease
  - d. Increased rates of general illness and mortality
  - e. Mental health issues due to the disaster and aftermath
  - f. Increased homelessness
  - g. Increased traffic congestion
  - h. Decreased tax revenue
  - i. Decreased residential population
  - j. Loss of some seaport customers to other ports
  - k. Large number of structures, public and private in need of extensive repair

#### **IV. SITUATION AND ASSUMPTIONS**

##### **A. Earthquake**

1. A catastrophic earthquake could occur in the Seattle area without warning and at any time.

##### **B. Planning Assumptions**

1. A detailed and credible common operating picture may not be achievable for 24 to 48 hours, or longer, after the earthquake – response operations may have to begin without a complete or detailed situation and critical needs assessment.
2. Staffing varies in many City departments depending on the time of day, should an earthquake strike at the time of lowest levels of staffing the response will be significantly impaired until off duty personnel can respond.
3. There are not enough City public safety resources to immediately address all, or even a majority, of the life safety needs expected after a severe earthquake.
4. Fires are the leading danger immediately following an earthquake due to the expected number of fires, damage to fire suppression systems, damage to water pipelines, difficulty in accessing fire incidents and limited resources.
5. The number of expected deaths will likely exceed the capacity of the Medical Examiner's Office, as well as any local mutual aid that office might call upon, which will require the mobilization of federal resources, establishment of temporary morgues, and instructions to the public on fatality management.

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6. The 911 phone system, if operating, will be overloaded.
7. During the initial response, the amount of radio use by responders will likely overload the 800 MHz radio system.
8. The limited capacity in the region for charging portable radio batteries and the expected high tempo of operations will make it difficult to keep City 800 MHz portable radios charged.
9. Departments should expect to receive no logistical support from the City Emergency Operations Center for 72 hours.
10. Damage to City owned buildings may impact the ability of City employees to effectively respond.
11. Traffic congestion will be significant due to roadway damage which can impact operations such as the establishment of shelters.
12. The University of Washington, a State institution, located within the jurisdiction of the City with its own Emergency Operations Center, relies on the City to provide water, electricity, sewage, fire response and some law enforcement specialized services – careful coordination will be needed between the City and the University to ensure effective operations.
13. Helicopters may be needed to support operational and logistical needs due to extensive road and bridge damage.
14. The City does not stockpile food or water for the general public.
15. Generally, City departments either do not stockpile supplies of emergency food and water for responders or if they do, only have a limited amount.
16. The level of personal preparedness by the public is insufficient to significantly decrease the need for public services.
17. Hospitals may not have sufficient capacity to meet the surge in patient demand.
18. Many organizations, public and private, routinely use “just in time” ordering and do not generally stockpile significant amounts of supplies; after an earthquake shortages of critical items, such as medical supplies are likely.
19. The City’s information technology systems do not have an alternate site location capability for the City’s data center located within Seattle Municipal Tower which will delay recovery of the computer infrastructure should the data center sustain damage during the earthquake.
20. Many City employees live outside of the City and will experience significant delays getting to/from home and work.
21. Damage to water utility infrastructure may impair firefighting.

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22. Numerous initial, separate fires may combine to create extremely large fires.
23. The generally cold and wet climate and interruption of water, sewer, electrical and natural gas service may increase the number of individuals in need of immediate shelter following an earthquake.
24. Spontaneous shelters will likely be established by private entities not in coordination with government.
25. The number of individuals seeking shelter will exceed the City's emergency shelter capacity.
26. It will take several days to establish shelters.
27. There is a large population of individuals in Seattle with access and functional needs that must be addressed during disaster response and recovery.
28. Seattle has approximately 800 unreinforced masonry buildings which are at risk of significant damage or collapse.
29. Social media will be an important source of information for the general public, however the accuracy of social media reports may cause confusion.
30. Missing person reports could number in the hundreds to thousands requiring a Family Assistance Center be activated as rapidly as possible to meet the demand.
31. The private sector will volunteer assistance to the response effort and provide contract services; which will require coordination with the public response.
32. Many individuals will volunteer to assist with the response; while this represents a potential resource it will also present significant operational and logistical challenges.
33. Donated goods, solicited and unsolicited, may present a significant challenge to manage.
34. Communications and collaboration methods which depend on the Internet or Information Technology infrastructure may be impacted and compromised by virtue of physical damage, over use and heavy traffic, and possibly malicious use by those hoping to take advantage of the disaster. They may require an extended period of time and extensive resources to return to even a minimal level of availability, function and security.
35. Neighboring jurisdictions will also be impacted, limiting the availability of mutual aid, and making it important to coordinate regional response operations through the King County Emergency Communication Center.

## **V. CONCEPT OF OPERATIONS**

### **A. Elements of an Effective Response**

1. Factors necessary for an effective response to a major earthquake:
  - a. City employees that know their role during a disaster and have been provided training and are personally prepared

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- b. A large percentage of the public that is prepared to survive without outside assistance for a minimum of three days and possibly several weeks
- c. A unified response, at all levels government
- d. Responders who are prepared to act without delay
- e. Timely, accurate and comprehensive public information to assist the public in meeting their own needs
- f. Redundant systems and procedures in place to ensure continuity of command, control, coordination and communications

**B. Earthquake Response Goals**

- 1. Saving and protecting the greatest number of people at risk
- 2. Provide for the safety of responders and other City employees
- 3. Saving and protecting as many residential, business and industrial properties as possible
- 4. Saving and protecting as much critical infrastructure as possible
- 5. Stop the spread of environmental damage
- 6. Minimizing human hardship and economic disruption

**C. City Response Priorities**

- 1. Life Safety
- 2. Incident Stabilization
- 3. Property Conservation
- 4. Environmental Protection

**D. Initial City Objectives For Earthquake Response**

- 1. Initial City objectives provide a starting point for the response and will be modified as needed.
  - a. Support a City strategy for firefighting, emergency medical service, rescue and hazardous material response
  - b. Assess damage and impacts to community
  - c. Provide sheltering in coordination with regional efforts
  - d. Sustain public confidence and trust in response and recovery efforts
  - e. Ensure life sustaining essentials are available to the public such as food, water, sanitation, medical care and fuel
  - f. Sustain situational awareness for City response and recovery

**E. City Strategy**

Even in an earthquake with catastrophic impacts, the City will retain jurisdiction and authority over the response and recovery efforts. This will be accomplished by maintaining a line of succession throughout City government, clearly defining areas of operation and responsibility, establishing alternate command centers, augmenting command and general staff using Mutual Aid resources, Incident Management Teams or Emergency Management Assistance Compact teams and delegating authority where needed.

On duty personnel will be responsible for the first hours of the response. The initial common operating picture will be imperfect due to the many challenges that will follow an earthquake. It will be based primarily on windshield surveys conducted by the Police and Fire Departments and possibly some early media reports.

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The initial City response to an earthquake consists of supporting and coordinating life safety efforts; controlling fires, addressing hazardous materials releases, providing emergency medical care, ensuring access to hospitals, conducting rescues and evacuations and maintaining public order. Damage to dams, water storage facilities or large pipelines may require immediate response operations to address hazards from local flooding and landslides.

Responders may have to make difficult choices regarding where to assign the limited resources available. Close coordination and unity of effort between all responders will be especially critical.

Repair of roads and bridges and water service to support life safety response operations will have priority over other repair missions.

To support the response, the first public message will be broadcast within the first hour following the earthquake. The first message will include instructions to limit travel on roadways and use of the phone system.

Concurrent with these early response operations, command centers will be activated, damage or impacts to infrastructure, facilities and systems determined, a more comprehensive common operating picture developed, City objectives and priorities established, resources obtained, an emergency proclamation issued and emergency powers implemented as needed.

Given the generally cold and wet climate and the time needed to establish shelters, efforts will be begin as soon as possible to access and assess the cache of shelter supplies, inspect for damage those buildings designated as shelter sites and begin the mobilization of shelter staff. The strategy for sheltering will be determined during the first operational period in the Emergency Operations Center.

Communication and coordination with neighboring jurisdictions and the State will be established as early as possible. The plans and logistics necessary to address the best use of private sector, State and Federal resources will be coordinated from a strategic level through the City Emergency Operations Center.

As resources arrive from outside the City, they will be integrated into response operations as directed in the City Consolidated Action Plan and, where appropriate, individual Incident Action Plans in order to ensure a coordinated and unified response. City and mutual aid responders will work within established areas of operation and under designated command organizations as defined by the City. Self deployment of resources will not be tolerated.

As immediate life safety issues are addressed and stabilized, the number of shelters established and their capacity will be increased as rapidly as available resources permit. To the degree practical, shelters will be established nearest to the community in need. Residents will be encouraged to remain in their homes if at all possible. Points of Distribution for food and water may be established for this purpose.

Fatality management and missing person investigations will be established as early as possible. An effective process for determining the status of missing persons contributes to stabilization and ultimately decreases the demand on law enforcement, medical and rescue resources. The City will advocate for a regional approach to fatality management and missing person investigations in order maximize limited resources, provide for a consistent approach and high quality of service. Public Health will lead this mission with close support from ESF-13 and ESF-15.

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Planning for recovery will begin as soon as possible and in parallel to response operations.

Given the potential for the disaster to overwhelm responders, every effort should be made to enlist the support of the community, where practical and safe to do so. Some examples are; encouraging individuals to clear their streets and sidewalks of debris, marking hazards, checking on neighbors, assisting the elderly or disabled, helping to move rubble at rescue locations, providing shelter to friends who are homeless.

**F. Trigger for Response**

City departments will err on the side of caution and be proactive when determining what initial actions to take following an earthquake.

1. Departments
  - a. Departments will initiate response operations when an earthquake occurs that may have caused damage or impacts to City facilities, systems or services
2. Emergency Operations Center
  - a. Department Emergency Support Function Representatives and Office of Emergency Management Staff Duty Officers will automatically respond to activate the Emergency Operations Center immediately following an earthquake that may have caused damage or impacts to City facilities, systems or services

**G. Common Operating Picture**

Departments will exchange information on damage and impacts to systems through the most effective communication method available at the time. Once Department Operations Centers and the Emergency Operations Center are activated, these reports will be consolidated into Snap Shot and Situation Reports. The goal is to develop a Common Operating Picture that includes an understanding of the extent of damage and impacts to people, systems and services.

1. Emergency Operations Center Planning Section is responsible for gathering, analyzing and disseminating the various damage reports.
2. Damage reporting and system assessments begin immediately after the earthquake and may take days to complete. Some cannot be done at night. Following an aftershock, some of these may have to be repeated. Building habitability must be considered in addition to structural integrity. There are several types of reports:
  - a. Windshield Assessments  
A rapid survey for fires, damage and the injured along designated routes conducted by Seattle Police and Fire Department personnel immediately following the earthquake which provides an overview of damage to the City and guides the initial assignment of police and fire resources
  - b. News Media  
All media report on damage and impacts soon after the earthquake strikes
  - c. Building Surveys  
Performed on City owned buildings by department employees on site that provides a brief overview of damage and habitability
    - Parks Department, Seattle Center, Library, Department of Transportation, Seattle Public Utilities and Seattle City Light, Seattle Fire Department and Seattle Police Department
  - d. Aerial Survey  
King County Sheriff Office Guardian One can provide a helicopter survey of the City with video downlink, other options for aerial survey include other jurisdiction

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helicopter, WSP fixed wing, private contractor aircraft or Unmanned Aerial Vehicles (UAV)

- e. Rapid Evaluation – Advisory (voluntary tags)  
Finance and Administrative Services personnel trained in ATC 20 post earthquake safety evaluation methodology assess the structural safety of facilities managed and operated under its jurisdiction - at the end of this evaluation an advisory tag will be posted with listed recommendations for acceptable use.
  - Compliance with these tags is voluntary.
- f. Rapid Evaluation – Placard (mandatory tags)  
Damage evaluation of City or other critical buildings, conducted by Department of Planning and Development teams trained in the ATC 20 process who post Placards describing what is considered lawful use of the building
  - Failure to comply with Placard instruction is unlawful
- g. Infrastructure Inspections  
Inspection of critical infrastructure such as roads, bridges, pipelines by specially trained individuals
  - Seattle City Light, Seattle Public Utilities, Seattle Department of Transportation, Puget Sound Energy, Seattle Steam, Hospitals
- h. Jurisdiction Evaluations and Inspections  
Damage evaluations and inspections conducted by neighboring jurisdictions which is reported to King County Emergency Coordination Center
  - Some information is exchanged between specific sectors such as between City Light and Bonneville Power Administration
  - University of Washington
- i. 911  
The public will report damage through the 911 system
- j. Social Media Reporting  
Social media sites, within minutes, begin to voluntarily collect, organize and post damage information which can include text descriptions, maps of damaged locations and photographs or video
- k. Private Evaluation  
Damage evaluation of private property conducted by private engineers hired by building owners.
  - Similar to the Rapid Evaluations-Advisory process described above, or more comprehensive assessments to develop a plan to repair a building and to resolve restrictions listed on Placards posted by Department of Planning and Development

**3. Rapid Evaluation Priorities**

Evaluations will be prioritized to support City objectives as defined in the Consolidated Action Plan.

- a. Department Building Surveys inform the decision to assign priority
  - For example: a Building Survey report that a building has collapsed will cause it to be removed from the evaluation list

**4. Infrastructure Inspection Priorities – In Order**

- a. Emergency requests to support life safety operations
- b. Individual department strategy for restoration of critical infrastructure



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**H. Response Operations**

1. Dispatch Centers
  - a. Immediately following the earthquake Dispatch Centers will request all units limit radio traffic to prevent system overload
  - b. Calls for service will be prioritized as directed by internal department plans, procedures or as directed
2. Field Responders
  - a. Units that become geographically isolated and are unable to communicate with their Dispatch Center, Department Operations Center or their chain of command shall meet at the local Fire Department Battalion Station to coordinate operations
3. Fire, Rescue, Emergency Medical and Hazardous Materials
  - a. Fire Alarm Center may discontinue dispatching and direct all units to account for their personnel, assess their stations for damage and drive their Life Safety Damage Routes
  - b. While conducting their assessment, fire department personnel may have to bypass emergencies
  - c. Based on the damage information obtained from the Life Safety Routes assessments, Fire Department personnel will determine the initial strategy for response
  - d. Deputy One is in command of Fire Department resources until relieved by the Assistant Chief of Operations
    - If communication systems are inoperable Fire Department units will coordinate at the Battalion level
4. Law Enforcement
  - a. The 911 Center may discontinue dispatching and direct all units to account for their personnel, assess their precinct for damage and drive their Life Safety Damage Routes
  - b. Police Department windshield assessment will be provided to the Fire Department as soon as possible
  - c. Based on the level Life Safety Routes assessments, and in coordination with the Fire Department and Seattle Public Utilities, Police Department personnel will determine their initial strategy for response
  - d. Life Safety law enforcement calls for service have first priority followed by life safety requests for support from the Fire Department or Seattle Public Utilities
  - e. If communication systems are inoperable Police Department units will coordinate at the Precinct level
5. Public Works
  - a. Upon request, Public Works departments will provide equipment and personnel to support Life Safety operations
    - This may require delaying other Public Works missions
  - b. Based on their critical infrastructure damage and capability assessments, which may take several hours, Public Works departments will prioritize and assign resources to restore services and repair infrastructure
6. Medical.
  - a. Disaster Medical Control Center at Harborview Medical Center determines status of hospitals in the region, how many patients they can support and, in coordination with the Fire Department, allocates patients to the appropriate facility
    - Overlake Hospital is the alternate Disaster Medical Control Center
  - b. Health and Medical Area Command (HMAC) coordinates the healthcare system response operations for Region Six (King County) and supports public health,

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hospitals, other healthcare organizations, emergency medical services and the medical examiner

- Point of contact with health departments in other counties and the State Department of Health
- Point of contact between local emergency operations centers and the healthcare system
- HMAC collects damage reports from hospitals and other health care providers and forwards to Seattle Emergency Operations Center
  - i. Public Health Seattle King County provides the staff for the HMAC
- Establish Specialized Support Functions
  - i. Alternate Care Facilities (ACF) which provide additional non-critical care medical bed space for the region
  - ii. Family Assistance Centers (FAC) which, in partnership with the Police Department, leads the effort to find missing persons and is the point of contact for families to file missing person reports
  - iii. Temporary morgues
- Supports hospitals, long term care facilities, and other inpatient facilities with medical evacuations as needed
- Responsible for estimating the number of fatalities and injured in coordination with the Joint Information Center

**7. Sheltering**

Sheltering for people, service animals and pets after any significant earthquake is a high priority. Before a shelter can be opened, the Department of Planning and Development Rapid Evaluation team must first assess the building for structural damage.

Individuals will be encouraged to stay in their homes if at all possible. The number of individuals in need of sheltering may be reduced if warming locations or Points of Distribution for essentials such as food, water and tarps are established. Individuals with functional needs may have the greatest and earliest need for sheltering. In general, pet shelters will be established close to general shelters if possible.

King County, the American Red Cross and the City will coordinate shelter operations. In addition, churches and other non-governmental organizations may also establish shelters.

- a. Human Services Branch in the Emergency Operations Center is responsible for coordinating shelter operations with Parks Department having the lead role in the operation of shelters located in Parks facilities
  - For City operated shelters Parks Department will provide staff
  - An Emergency Operations Center Shelter Task Force, led by the Human Services Department, may be activated to coordinate sheltering
- b. Teams responsible for moving City shelter supplies will assess the cache for damage and accessibility as soon as possible
- c. Shelter activation strategy will be established during the first operational period in Emergency Operations Center planning cycle
- e. There are eight Community Centers designated as Tier 1 Shelters
  - Tier 1 Shelters have emergency generators
  - Total capacity of Tier 1 Shelters is approximately 1000 individuals – this is an estimate than can be impacted by other factors such as building damage and accessibility

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- Tier 1 shelters can expand capacity by developing additional shelters in nearby school gymnasiums – this is known as a Shelter Campus
- f. Examples of other possible shelter options
  - Seattle Center
  - University of Washington
  - Provided by State of Washington, FEMA or other partners
- g. Considerations when establishing a shelter

Conditions immediately following an earthquake may require opening shelters with very limited services and support.

  - Shelters should be established as close as possible to the areas in most need
  - Inspected by a Rapid Evaluation Team –Placard
  - Fire Department inspection
  - Sufficient staff to operate the shelters
  - Arrangements in place to provide for water and food and disposal of solid waste
  - Heat/air conditioning, electricity, gas, water, sewage
  - Ability of Emergency Operations Center Logistics Section to sustain shelters
  - Adequate road ingress and egress routes
  - Sufficient parking
  - Transit service routes nearby
- h. Shelter facility inventory, status, occupancy and reporting will be done using the FEAM National Shelter System.

**I. Community Response**

In order to focus City response on the high priorities of fire suppression, survivor rescue, utility damage assessment and repair, etc. an effective response requires active engagement of community members seeing to each other's needs. "Hubs" have been organized in some neighborhood districts intended to be pre-designated sites where people who live close by will come together to help one another out with immediate needs. Each Hub site has radio communication with the City Emergency Operations Center provided by local amateur radio operators. This relatively new program sets the stage to organize similar sites in neighborhood districts throughout the City.

The Office of Emergency Management has trained thousands of individuals and neighborhood groups how to respond to their own needs and those of their families and neighbors through the Seattle Neighborhoods Actively Prepare (SNAP) program and other venues. A SNAP trained neighborhood is more likely to have supplies of food, water and other essentials on hand and trained and practiced controlling utilities, providing first aid, and seeing to the needs of their neighbors in an organized fashion.

The organized effort afforded by both Hub sites and SNAP neighborhoods can be helpful to the community wide response: by providing information about local conditions and needs and organizing teams to assist with response and relief operations.

Many community based organizations have developed emergency plans with the assistance of the Office of Emergency Management and Public Health – Seattle & King County and now stand a better chance of continuing to deliver high priority services.

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Many people will likely spontaneously volunteer to assist in response and relief efforts. The key to effectiveness here is channeling that energy into volunteer agencies that can accommodate, train and deploy them such as the American Red Cross.

**J. Logistics**

Departments will be responsible for their own logistical support until the Emergency Operations Center Logistics Section is activated; departments will rely on a combination of stored supplies, retail and wholesale outlets, contractors, service providers, designated Staging Areas, mutual aid and emergency commandeering. After an earthquake it is expected that these sources may not be accessible, be in very short supply or not available at all. This will limit the operations that can be conducted until more resources can be acquired.

It may take up to 72 hours before the Emergency Operations Center Logistics Section can operate at maximum capacity. Even after the Logistics Section is fully operational, departments will be expected to maintain responsibility for obtaining specialized resources. The City Consolidated Action Plan will specify what resources the Logistics Section is responsible for providing. In general, the goal is to consolidate the ordering of common resources under the Emergency Operations Center Logistics Section while leaving departments responsible for ordering specialized resources.

1. Resources – Common, Specialized and Regional

a. Common Resource Examples

- Food
- Water
- Temporary Sanitation Facilities
- Fuel
- Responder housing
- Sheltering supplies
- General supplies such as gloves, hard hats, flashlight etc

b. Specialized Resource Examples

- Electrical substation transformers
- Specialized rescue tools
- Medical supplies

c. Regional Resource Examples

- Water Blivets
- Radio Cache

2. Emergency Operations Center Logistics Section Staffing

To manage the anticipated workload the Logistics Section staffing will be augmented by the following:

a. Reassigned City employees

b. Volunteers

c. Mutual Aid

- Other jurisdictions
- EMAC Teams
- National Guard Homeland Response Force
- Contractors
- Coast Guard

d. Emergency Operations Center Branch Representatives (per 12 hour shift)

- Law enforcement (1 officer)
- Fire Department (1 firefighter)

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- Infrastructure (2 individuals)
  - Human Services (1 individual from Human Services and 1 individual from Public Health)
3. Ordering Common Resources
    - a. Emergency Operations Center Logistics Section defines what common resources will be ordered through departments
    - b. Departments in need of common resources will complete a City Resource Request in WebEOC
  4. Ordering Specialized Resources
    - a. Departments will obtain specialized resources using established department procedures and vendors
      - When specialized resources will require logistical support such as fuel or food, the resource order must be first approved by the Emergency Operations Center Logistics Section Deputy Section Chief
      - Branch representatives assigned to the Emergency Operations Center Logistics Section will facilitate this process where applicable
    - b. When a special resource can't be obtained the department in need will complete a City Resource Order Form in WebEOC
      - Branch representative assigned to the Emergency Operations Center Logistics Section will assist with the ordering of specialized resources
  5. Ordering Regional Shared Resources

Using Federal grants, a number of resources have been purchased which are shared by all jurisdictions within the grant area. During the initial response, departments in the region will attempt to coordinate the use of these resources as fairly as possible and as conditions permit. After activation, local Emergency Operations Centers will coordinate the use of these shared resources.
  6. Facilities
    - a. Replacement of damaged department facilities to support Continuity of Operations
      - Departments provide a needs assessment to Finance and Administrative Services
      - Finance and Administrative Services is responsible for acquiring replacement facilities:
      - As part of Continuity of Operations planning some departments may have already designated specific facilities
    - b. Identification of facilities to support a surge in operations (example: mutual aid strike teams, task forces, contracted service providers, staging areas, and command posts)
      - Emergency Operations Center Logistics Section coordinates the identification and assignment of additional facilities
      - Departments submit a City Resource Request that describes the type of facility needed, intended use of the facility, number of occupants etc
  7. Staging Areas Camps and Bases
    - a. Before the Emergency Operations Center Logistics Section is activated, departments establish Staging Areas, Camps and Bases as needed
    - b. When the Emergency Operations Center Logistics Section is activated it will determine which of those Staging Areas, Camps and Bases it will assume responsibility for and which will be maintained by departments
    - c. The State of Washington has designated specific locations as State Staging Areas. Emergency Operations Center Logistics Section will be responsible for coordinating with the State on the establishment of these sites.

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- d. Emergency Operations Center Logistics Section is responsible for establishing, supplying and operating all Points of Distribution for food, bottled water and other commodities with the exception of those locations established for distribution of medical equipment and medications -in those cases the Emergency Operations Center Logistics Section will provide non-medical support to Medical Points of Dispensing.
- 8. Shelters, Warming or Cooling Center
  - a. Emergency Operations Center Logistics Section is responsible for supporting all shelters (human and animal) warming or cooling centers as requested by the Human Services Branch
- 9. Donations.
  - a. Donations will be coordinated by the Logistics Section
  - b. In general, unsolicited donations will be discouraged in favor of donations of money
- 10. Healthcare Logistics.
  - a. Hospitals and other health care providers are responsible for ordering their own medical supplies, with HMAC providing assistance as needed
  - b. On behalf of the medical community, HMAC serves as the single point of ordering for County, State and Federal government resources
  - c. Logistical support for mutual aid medical teams will be the responsibility of HMAC
  - d. Local Emergency Operations Centers, including Seattle, are responsible for non-medical resource requests from healthcare providers
- 11. Communications

The City Earthquake Communications Plan describes the various communications systems available to responders and how they will be coordinated during an earthquake. The goal is to provide redundant communication systems that ensure all departments with a critical role can effectively coordinate

  - a. Requests for radio patching, 800 MHz radio reprioritizing, Cell on Wheels or Switch on Wheels or other communication resources which are limited in number or capacity will be screened by the Emergency Operations Center Operations Section Chief and the Department of Information Technology
    - The Department of Information Technology and the Emergency Operations Center Logistics Section will coordinate the ordering and support related to communication infrastructure resources
  - b. Medical Communication
    - HMAC and all hospitals in Seattle have 800 MHz radios, satellite phones and amateur radio capability

**VI. ORGANIZATION AND ASSIGNMENT OF RESPONSIBILITIES**

**A. Emergency Support Function 1 Transportation (Department of Transportation)**

- 1. Determine if Seattle Department of Transportation resources are needed to support life safety priority operations.
- 2. Support clearing ingress and egress roadways to local hospitals, blood bank, other high priority healthcare locations and major incident scenes as needed.
- 3. Clear ingress and egress routes to shelter locations based on a priority determined by the Emergency Operations Center Operations Chief.
- 4. Request Seattle Police Department take responsibility to close bridges determined to be unsafe, so that inspectors may continue with their inspections of other bridges.
- 5. Coordinate with other transportation agencies in the region to determine status of roads and bridges outside of Seattle.

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6. Use Department Mapping Systems and the City of Seattle Street Closure Tracking List Mapping System and the Master Street Closure List to document status of roads.
7. Consider forming an Emergency Bridge Repair Task Force to coordinate rapid repair efforts.

**B. Emergency Support Function 2 Communications (Department of Information Technology)**

1. Assess information technology systems for damage and provide Emergency Operations Center Operations Section Chief with a recommendation for service restoration and estimate time to complete such restoration.
2. Support the Emergency Operations Center Operations Section Chief in determining the strategy for radio patching, radio reprioritization, Cell on Wheels\Switch on Wheels requests and allocation.
3. Monitor 800 MHz system use and notify Emergency Operations Center Operations Section Chief of any decrease in functionality.
4. Conduct damage inspection of 800 MHz facilities and equipment.
5. Report fuel consumption\refueling need of 800 MHz generators to Emergency Operations Center Logistics Section.
6. Coordinate transport of radio system repair parts and teams with Emergency Operations Center Logistics Section.
7. Office of Information Security to consult on the security and reliability of data being received and methods of communications and collaboration that might be taking place during and after an event.
8. Coordinate with local telecommunication providers to support emergency requests for repair or augmentation of phone or internet service to critical functions and locations such as the Emergency Operations Center, dispatch centers, other critical infrastructure or incident scenes.

**C. Emergency Support Function 3 Public Works and Engineering (Seattle Public Utilities)**

1. Determine if Seattle Public Utilities construction equipment and personnel are needed to support life safety priority operations.
2. Advise Emergency Operations Center Operations Section Chief immediately if unable to supply water to fire department firefighting operations.
3. Prepare Blivets for immediate deployment (24 hour process).
4. With assistance from Public Health Seattle King County and Emergency Operations Center Logistics, develop plan for providing portable sanitation in areas without sewer service.
5. In coordination with Emergency Operations Center Operations and Planning Sections, revise and set Rapid Evaluation Priority List.
  - a. Contact Public Health Representative to determine initial survey status of following hospitals and incorporate the following locations, as needed, into updated Rapid Evaluation Priority Plan
    - Harborview
    - Swedish
    - Childrens
    - University of Washington
    - Providence
6. Notify Emergency Operations Center Logistics Section of any mutual aid Inspectors already on scene.
7. Be prepared to brief Emergency Executive Board on potential issues surrounding red and yellow placarded buildings.
8. Assist Joint Information Center supervisor in developing public messaging about building evaluations.

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9. Revise priority list for Rapid Evaluation of Buildings.

**D. Emergency Support Function 4, 9, 10 Firefighting, Search and Rescue, Oil and Hazardous Materials (Fire Department)**

1. Provide situation report\summary of windshield assessment to City departments and Emergency Operations Center as described in the Essential Elements of Information plan.
2. As needed, enlist support from other department resources to support Life Safety operations.
  - a. Request Police Department Liaison Officer assist in locating missing fire units or to act as runners should communications fail
  - b. Request Police Department assign officers to complete damage assessments in those areas that could not be completed by Fire Department personnel

**E. Emergency Support Function 5 Emergency Management (Seattle Office of Emergency Management)**

1. Activate Emergency Operations Center to at least Major Incident Level.
2. Develop and disseminate City Objectives, Emergency Operations Center Operational Schedule, Priority list for Rapid Evaluation, Consolidated Action Plan and Essential Elements of Information Strategy.
3. Assign Office of Emergency Management personnel to Emergency Operations Center Director, Deputy Director and all Section Chief positions.
4. Be the point of contact with County regional, State, Federal partners and designated non-governmental organizations.
5. Coordinates the Citywide response and ensures unity of effort in response and recovery operations.
6. Law Department is responsible for proclamation writing, development of emergency orders and general legal advice.

**F. Emergency Support Function 6 Mass Care, Housing and Human Services (Human Services Department)**

1. Determine initial strategy for sheltering and feeding in coordination with Parks Department.
2. Assess human services infrastructure and need for mass care.
3. Identify vulnerable populations and any communication or support strategies needed.

**G. Emergency Support Function 7 Resource Support (Finance and Administrative Services)**

1. Single order point for County, State and Federal resources.
2. Establish policy for resource ordering –single point or department for specific resources.
3. Determine mutual aid already requested by departments.
4. Advise Emergency Operations Center Operations Section Chief immediately if City owned gas stations are inoperative or damaged.
5. Establish contract with King County Emergency Coordination Center Logistics Section.
  - a. Assign Liaison to King County Emergency Coordination Center Logistics to assist with processing resource orders from Seattle
6. Develop local Staging Areas, Bases, Camps and update as needed
7. Coordinate directly with Logistics counterparts at KCECC and State Emergency Management.
8. Review, update and implement feeding plan for responders.
9. Within the Logistics Section, Personnel will coordinate signing up of volunteers and reassignment of City employees.



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**H. Emergency Support Function 8 Public Health and Medical Services (Public Health Seattle and King County)**

1. Provide official totals or estimates of fatalities and missing persons.
2. Coordinate closely with the Seattle Emergency Operations Center Joint Information Center and Operations.
  - a. Sanitation and food handling instructions to general public
  - b. Instructions for reporting and managing fatalities
  - c. Release of official totals or estimates of fatalities and missing persons
3. Coordinate and provide mortuary services, including investigation of sudden, unexpected, non-natural deaths, body identification and disposition.
  - a. Provide guidelines to responders on the disposition of fatalities.
4. Direct and manage medical surge operations, provision of immunizations, prophylaxis and other preventative treatments.
5. With the police department, joint responsibility for investigating deaths and locating missing persons.
6. Coordinate with the Emergency Operations Center to establish transportation routes for delivery of critical healthcare supplies and services.
7. Coordinate and provide environmental public health services to include;
  - a. health inspection, on a priority basis, of responder food and sanitation arrangements
  - b. Inspections for Temporary Debris Staging and Reduction Sites
  - c. Disposal of disaster related solid waste
  - d. Assessment of the health impacts of wastewater spills and overflows
  - e. Services to emergency pet shelters, including inspections, sanitation, and guidance on disposal of deceased animals
  - f. Support to Seattle Public Utilities in providing emergency sanitation services to areas expected to be without potable water and/or sewer service for an extended period
8. Plan, coordinate, resource, and provide shelters for medically fragile populations when needed.
9. Coordinate movement of fragile populations from general population shelters to medical needs shelters, alternate care facilities and/or appropriate healthcare facilities.
10. Coordinate medical resource management for healthcare partners.
11. Advise Emergency Operations Center on need to provide emergency drinking water at hospitals using Blivets.
12. Contact Seattle Steam and determine ability to provide steam to area hospitals.

**I. Emergency Support Function 12 Energy (Seattle City Light)**

1. Determine if Seattle City Light construction equipment and personnel are needed to support life safety priority operations.

**J. Emergency Support Function 13 Public Safety and Security (Seattle Police Department)**

1. Provide situation report/summary of windshield assessment to City departments and Emergency Operations Center as described in the earthquake communications plan.
2. Assign one officer to Harborview Medical Center to establish contact with Disaster Medical Control Center and to provide traffic control to support ingress/egress to the Center.
3. Assign Liaison to Deputy One until Department Operations Centers or the Emergency Operations Center activates.
  - a. Use officers to locate missing fire units or to act as runners should Fire Department communications fail
4. Assign officers to close bridges deemed unsafe to allow Seattle Department Bridge Inspectors to continue with their inspections.

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5. With Public Health, joint responsibility for investigating deaths and locating missing persons.
  - a. Staff the Missing Person function in Family Assistance Center
  - b. Provide estimates of the number of missing
6. Assist Fire Department with emergency evacuations.
7. On a priority basis, and as resources permit:
  - a. Conduct high visibility emphasis patrols
  - b. Provide security at shelters, Family Assistance Centers, Alternate Care Facilities, Temporary Morgues and other locations as needed
  - c. Assist with commandeering of critical resources such as fuel
  - d. Provide crowd control or ingress and egress traffic control at major incidents scenes and/or hospitals
  - e. Conduct additional windshield assessments in the event of a major aftershock
    - Fire department will not be available to conduct a citywide survey once their resources are committed

**K. Emergency Support Function 14 Community Recovery**

1. Activate immediately concurrent with response to support short and long term recovery operations and planning.
2. Stand up and coordinate staffing of the Interdepartmental Recovery Team to respond to immediate and anticipated recovery needs in the areas of infrastructure/built environment, local economic impacts and human/community needs.
3. In coordination with the Mayor's Office, support stand up of a Community Recovery Team, an advisory team to harness resources from the wider community and engage stakeholders in recovery planning.
4. In coordination with the Office of Emergency Management, consolidate city damage reports for FEMA damage assessment processes required to justify request for a Presidential Disaster Declaration ; coordinate with State and Federal partners on requests for disaster recovery assistance programs to offset public and private response and repair costs.
5. In coordination with the Office of Emergency Management, begin process for formal Mayoral designation of an Applicant Agent for FEMA Public Assistance.

**L. Emergency Support Function 15 External Affairs (Mayor's Office)**

1. When the Emergency Operations Center is activated, all department Public Information Officers become direct reports to the Mayor's Office through the Joint Information Center supervisor.
2. In coordination with Emergency Operations Center Operations Section, ensure public messaging related to life safety issues is initiated as soon as possible, given priority and broadcast frequently.
3. Activate City emergency web page.
4. With Emergency Operations Center Planning Section, review Snap Shots and Situation Reports, Press Releases and Consolidated Action Plans for accuracy prior to publication.
5. Provide responders with a written daily summary of disaster related services, their location and hours of operation as well as contact information.
  - a. Every City employee and responder is seen by the public as a source of information about the disaster and what the City is doing about it
6. Coordinate with Emergency Operations Center Logistics Section on public messaging related to donations.
7. Assume a large, international, media presence following the disaster.

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- a. Designate an alternate location for press conferences in anticipation the Media Briefing Room in the Emergency Operation Center may not have sufficient capacity and advise Emergency Operations Center Logistics Section
8. Work with the Emergency Operations Center Operations Section to integrate public messaging events into the Emergency Operations Center planning cycle.

**VII. DIRECTION CONTROL AND COORDINATION**

**A. City Emergency Operations Center**

1. Responsible for citywide strategy, support and coordination.
2. The Emergency Operations Center coordinates with King County Emergency Coordination Center, State Emergency Operations Center and other jurisdictions in the region.
3. Coordinates Mutual Aid requests from departments.
4. The Emergency Operations Center Consolidated Action Plan is the citywide plan for disaster response operations.
  - a. Updated each operational period
5. Incident Action Plans cover operations for individual Incident Commands or for Area Commands
6. Type I, II or III Incident Management Teams may be used to augment command and control functions as needed.
  - a. All City and non-city responders will conduct operations either under the City Consolidated Action Plan or a specific Incident Action Plan.
  - b. The Emergency Operations Center will work with departments to define Areas of Operation or Responsibility
7. The Emergency Operations Center Joint Information Center will coordinate all City public information activity
  - a. The Joint Information Center will participate in the Regional Joint Information System

**B. Emergency Executive Board**

The Emergency Executive Board is composed of department heads that provide policy advice to the Mayor.

1. The Emergency Executive Board will convene as needed to resolve policy issues that arise during the response.
2. Emergency Support Function Representatives in the City Emergency Operations Center are expected to identify and report policy issues that require the assistance of the Mayor and the Emergency Executive Board.
  - a. Representatives have been trained in how to document these issues

**VIII. INFORMATION AND COMMUNICATION**

**A. Reports**

The City Consolidated Action Plan and the Essential Elements of Information strategy for earthquakes define how the City Emergency Operations Center shares information. A number of methods are used:

1. Snapshot
  - a. Common Operating Picture
  - b. Issued every one to two hours
  - c. Update on the situation and response operations

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- d. Can be viewed using handheld devices
  - e. Is sent to a wide audience of government and partners in the region
- 2. Situation
  - a. Common Operating Picture
  - b. Issued twice during each operational period
  - c. Comprehensive overview of the situation and response operations
  - d. Is sent to wide audience of government and partners in the region
- 3. Press Release
  - a. Issued frequently during the disaster by the Joint Information Center
  - b. Individual departments may also issue press releases in coordination with the Joint Information Center

**B. Mapping**

- 1. Mapping in support of disaster operations will be coordinated through the Emergency Operations Center Planning Section. Requests for Emergency Operations Center maps will be directed to the Planning Section.
- 2. The initial Emergency Operations Center situation map post earthquake – subject to modification as conditions require:
  - a. Areas, or exact location, of major fires, building collapse, major slides, urban flooding or other immediate and significant hazards
  - b. Status of major bridges
  - c. Status of freeway
  - d. Closed or evacuated hospitals
  - e. Name and location of Incident Command Posts
  - f. Status of ferry terminals
- 3. Maps generated by other jurisdictions will be reviewed before adoption by the City
- 4. Maps for public information purposes must be reviewed by the Joint Information Center prior to release
- 5. Departments will provide a copy of any map they create to the Emergency Operations Center Planning Section
- 6. A shake map which describes the intensity and location of the earthquake, provided by the United States Geological Service, will be distributed as a separate map
- 7. Social Media maps
  - a. Social Media maps will be considered UNCONFIRMED and must be verified before use
  - b. Emergency Operations Center Planning Section will monitor social media maps for operational information
  - c. The Joint Information Section will monitor social media maps for public information

**C. Internet**

- 1. WebEOC
  - a. Primary tool for documenting information about the disaster
  - b. Base Incident: Major Earthquake Seattle
    - This is a standing base incident available to responders before the Emergency Operations Center is activated
  - c. Sub Incidents - modified as needed during the event
    - Sub Incidents divide information into categories in order information easier to locate and organize
      - Area Commands or Incident Commands established

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- Damage reports
  - Shelter Operations
  - Family Assistance Center
  - Mortuary Operations
  - List of Mutual Aid responders
- d. WebEOC Significant Events:
  - Official estimate of the number of fatalities and injured
  - Estimate of disaster costs
  - Areas that have been evacuated
- 2. Emergency Operations Center Email.
  - a. Seattle Emergency Operations Center maintains an email account for disaster response which is monitored by the Emergency Operations Center Planning Section
- 3. City Disaster Website
  - a. The City Homepage can be rapidly switched to a disaster format by the Mayor's office
- 4. Seattle Department of Transportation SharePoint Street Closure Tracking list and Road Conditions map.
  - a. Documents impacts to City streets
  - b. Seattle Police Department can input information into the Street Closure System
- 5. National Shelter System.
  - a. Human Services Branch, and other shelter providers in the region, use the National Shelter System database to share shelter information
- 6. WATrac Incident Management System.
  - a. Incident management software used by HMAC members to share information which Seattle Emergency Operations Center staff can view
- 7. Regional SharePoint Information Sharing
  - a. King County Emergency Management maintains the regional SharePoint site
  - b. Available to support collaboration between departments and jurisdictions as needed

**E. Radio and Phone**

1. Radio Systems (City and Auxiliary Communication Service)
  - a. A radio communications plan for an earthquake scenario has been provided to all departments
  - b. Auxiliary Communications Service staffs the Emergency Operations Center communication room and monitors Ops Call channel, amateur radio, King County ECC radio and others
  - c. City Hubs can communicate with the City Emergency Operations Center using amateur radios
2. Phone
  - a. Government Emergency Telecommunication Service
    - When the phone system is overloaded with calls, increases the chance a caller using this service will be able to complete a phone call using a wired or cell phone
    - City responders have been provided accounts including all Emergency Operations Center Duty Officers
  - b. The City phone network may be more resilient than the public network
  - c. A common phone number for reaching the City Emergency Operations Center has been designated and, if needed, up to six answering stations can be established in the Emergency Operations Center to support this phone line

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- d. The Auxiliary Communications Service monitors the Emergency Operations Center satellite phone